REMARKS/ARGUMENTS

In the Office Action mailed February 2, 2009, claims 4-9 have been withdrawn from consideration and claims 1-3 were rejected by the Examiner. Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action. All the pending claims at issue are believed to be patentable over the cited references.

CLAIM REJECTIONS – 35 U.S.C. §103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negative by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.,* 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 and 3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over FR 2284665 to Masselin (Masselin), in view of EP 0846847 to Hideaki (Hideaki). The Applicant respectfully traverses.

Initially, Applicant notes that Masselin is directed towards the use of Alternating Current (AC) at high voltages and frequencies. *See page 3, lines 1 to 7.* The purpose of passing the mixture of water and alcohol through the electric field is to electrolyze water to generate a sufficient amount of Hydrogen and Oxygen to combust the relatively low concentration of alcohol present in the fuel. *See page 1, lines 18 to 23.* More particularly, Masselin is directed towards a method of burning a very low quality fuel as a cooking fuel. Specifically, the fuel is of such low alcohol concentration that it would not otherwise combust as a cooking fuel. This poor quality fuel is augmented with hydrogen and oxygen generated via electrolysis.

Hideaki discloses an apparatus for an internal combustion engine and a method for improving the ratio of air to fuel. *See Abstract and throughout the Specification.* The apparatus comprises an ionizer(s) for ionizing the gas mixture comprising fuel, air and a mixture of water and alcohol (namely, negatively charging them) with a high voltage (6000~30,000V) so as to obtain the negatively-charging and preoxidized hydrocarbon gas by cracking the hydrocarbon molecule. *See Page 4, lines 10 to 39, page 3, lines 20 to 21, and claim 21.* While, ethanol is disclosed, in actual practice, Hideaki utilizes a mixture of ethanol with 5% to 30% turpentine. *See Summary of the Intention.*

Specifically, Hideaki discloses combining fuel from a fuel tank, hydrocarbon gases from an engine crankcase vent, and air with a liquid mixture of water and alcohol. These combined constituents are passed through ionizer to crack the hydrocarbon molecule in order to obtain negatively charged and preoxidized hydrocarbon gas. In this manner, the fuel/air ratio is modified to increase combustion efficiently. Importantly, Hideaki does not disclose converting water into fuel and, in fact, teaches away from such practice. In this regard, any oxygen freed

during the ionization procedure is used to preoxidize the hydrocarbon gas prior to the gas being introduced to the piston chamber.

In contrast, claim 1 recites, *inter alia*, method for converting water into fuel, comprising mixing water with ethanol in a certain ratio by weight, heating and evaporating the obtained mixture to obtain a vapor mixture and passing the said vapor mixture through a DC electric field. That is, this method converts water into fuel. In both Masselin and Hideaki, hydrocarbon gas vapor is the fuel and the mixture of water and alcohol is used as an additive or a diluent.

In the technical solution of the present invention, the vapor of the mixture of water and ethanol passes through the direct current electric field for being electrolyzed to get the flammable gases including hydrogen and ethanol, which are introduced into the internal combustion engine as energy sources.

As such, no combination of Masselin and Hideaki are capable of achieving the technical solution in the present application. The technical solutions of the present invention and the prior techniques have completely different designs and are also different in the adopted technical means. That is, the technical features in these two technical solutions are not the same, and the technical solution of the present application can reduce the pollution more effectively over the references. Moreover, the device of the present invention has advantages of simple structure and safe operation etc. over the prior devices, and the technical effect of the present application is better than the technical solutions of Masselin and Hideaki.

In view of the foregoing, withdrawal of the 35 U.S.C. § 103(a) rejection to claim 1 as being anticipated by Masselin in view of Hideaki is respectfully requested. Claim 3 depends from independent claim 1. Therefore, withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1 and 3 as being anticipated by Masselin in view of Hideaki is respectfully requested.

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Masselin, in view of Hideaki, as applied to claim 1 above, and further in view of Davis *et al.* (US 4,565,548, "Davis").

Initially, the Applicant notes that claim 2 depends from independent claim 1 and that claim 1 is believed to be patentable for at least the reasons stated hereinabove. Applicant further notes that any claim that depends from an allowable claim is also allowable. Therefore, Applicants respectfully request that the rejection to claim 2 be removed.

Furthermore, Davis discloses a fuel mixture of gasoline, alcohol and water, wherein the alcohol comprises methanol, ethanol, tert-butanol etc., and also the surfactant represented by formula 1 is added in order to homogenously mix the gasoline, alcohol and water. *See Abstract.* Since the mixture comprises a lot of materials instead of only two materials in the present application, Davis does not illuminate the proportion only between ethanol and water. It is unconceivable for a person skilled in the art to obtain the technical solution of the present application by just applying the ethanol and water disclosed by the totality or any combination of Davis, Masselin, and Hideaki.

CONCLUSION

In view of the foregoing remarks, Applicant respectfully requests that all the objections and rejections to the claims be removed and that the claims pass to allowance. If, for any reason, the Examiner disagrees, please call the undersigned at 202-861-1629 in an effort to resolve any matter still outstanding before issuing another action. The undersigned is confident that any issue which might remain can readily be worked out by telephone.

In the event this paper is not timely filed, Applicant petitions for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036 with reference to our Docket No. 56816.1640.

Respectfully submitted,
BAKER & HOSTETLER LLP

Michael D. Graham
Reg. No. 51,750

Date: May 4, 2009
Washington Square, Suite 1100
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036-5304
Telephone: 202-861-1500
Facsimile: 202-861-1783

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